REMARKS

Claims 1-14 are pending in this application. Claims 3, 6-8 and 10 are withdrawn from consideration. By this Amendment, claims 1, 9, 11, 12, 13 and 14 have been amended. No new matter has been added. It is submitted that this Amendment is fully responsive to the Office Action dated October 30, 2007. Please reconsider the application in view of the above amendments and the following remarks.

Response to Requirement for Information

The Examiner has set forth the disclosure requirement for this Office Action on page 2 under the heading "Requirement for Information."

Applicants respectfully submit the following: as to the invention according to claim 1, a notice of rejection under **Japanese Patent Law Section 29(2)** was received from the Japanese Patent Office on August 8, 2007, which said that the invention in claim 1 could have been easily made from the prior art which was disclosed in an Information Disclosure Statement previously filed with the United States Patent Office on October 31, 2007. In response to this rejection, Applicants amended and filed claim 1 as follows:

"*An image processing apparatus taking NxM pixels (N, .M being a natural number of 2 or more) as one block, for processing. image data consisting of a plurality of blocks by the unit block, said image processing apparatus comprising: a first resizing means for resizing said image data in a first direction; a line storage means capable of storing an output at least*

corresponding to one line of image data processed by the first resizing means on blocks arranged in the first direction adjacently to blocks to be resized; and a second resizing means for resizing in a second direction intersecting the first direction with using image data of said blocks to be resized outputted from said first resizing means and image data of said adjacent blocks acquired from said line storage means."

In response to this amendment, Applicants received a final rejection dated November 17, 2007, which said "since the disclosure of amended claim 1 is unclear, the application does not comply with the requirements under Japanese Patent Law Section 36(6)(ii)." In response to this rejection, the Applicants filed re-amended claim 1 as follows:

"*An image processing apparatus taking NXM pixels (N, M being a natural number of 2 or more) as one block, for processing image data consisting of a plurality of blocks by the unit block, said image processing apparatus comprising: a first resizing means for resizing said image data in a first direction; a line storage means capable of storing, of outputs of image data processed by the first resizing means on blocks arranged in the first direction adjacently in a second direction intersecting said first direction to blocks to be resized, an output at least corresponding to one line adjacent in said second direction to said blocks to be resized; and a second resizing means for resizing in said second direction with using image data of said blocks to be resized outputted from said first resizing means and image data of at least one line adjacent in said second direction to said blocks to be resized acquired from said line storage means.*"

In response to this, Applicants have received an unofficial notification from the Examiner indicating that the reason for rejection under Section 36 has been eliminated.

Specification

The Examiner contends that the title of the invention is not descriptive; therefore, a new title is required that is clearly indicative of the invention to which the claims are directed. Applicants have amended the title. As such, Applicants submit that the new title is clearly indicative of the invention to which the claims are directed. Accordingly, Applicants request that the objection be withdrawn.

Claim Rejections - 35 U.S.C. §112

The Examiner has rejected claims 1-2, 4-5, 9 and 11-14 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants respectfully traverse this rejection.

As to claims 1 and 2, the Examiner contends that the phrase "wherein said second resizing means is formed so as to acquire image data of adjacent block from said line storage means" is unclear. Specifically, the Examiner inquires as to what is "adjacent block" and how is it related to the other claim elements.

The MPEP 2173.05 (a) (I) states that the meaning of every term used in a claim should be apparent from the prior art or from *the specification and drawings* at the time the application is filed. Moreover, when the specification states the meaning that a term in the claim is intended to have, the claim is examined using that meaning, in order to achieve a complete exploration of the applicant's invention and its relation to the prior art. *In re Zletz*, 893 F.2d 319, 13 USPQ2d 1320 (Fed. Cir. 1989).

Applicants assert that the meaning of "adjacent block" is abundantly clear from the specification and drawings of the present application. For example, if in a one dimensional system X is defined on a line, then it is possible for X to have a left adjacent value of (X-1) and a right adjacent value of (X+1). Similarly, in a two dimensional system, as illustrated in Fig. 5 and described in paragraph 2 on page 4 of the present application, it is possible for block (I, J) to have (I, J-1) and (I-1, J) as its adjacent blocks. Accordingly, Applicants request that the objection be withdrawn.

Furthermore, as to claims 1 and 2, the Examiner argues that the line storage means only stores one line of horizontal image data, yet the second resizing means acquires "image data" from the line storage means. Applicants have amended claim 1 to make clear that the line storage means may include more that one line memory having capacity for storing image data corresponding to one line, support for which may be found in at least Figs. 11 and 13 of the present application. Therefore, Applicants submit that this amendment makes it abundantly clear

that the second resizing means may acquire image data from at least one of the line memory of the line storage means. Accordingly, Applicants request that the objection be withdrawn.

As to claim 4, the Examiner rejects it because of the phrase "thinning out." The Examiner requests clarification as to what is being thinned out? Applicants submit that the present application is referring to pixel thinning as illustrated in at least Fig. 8B. Accordingly, Applicants requests that the objection be withdrawn.

As to claim 5, the Examiner rejects claim 5 because of the use of phrase "added average." The Examiner states the following: "For claim 5, the added average is based on added average of what?" Applicants assert that the meaning of "added average" is abundantly clear from the specification and drawings of the present application. For example, the added average refers to the technique for outputting an average of a number of adjacent pixels as illustrated in at least Fig. 8A and described on at least page 11 of the present application. Accordingly, Applicants request that the objection be withdrawn.

As to claim 9, the Examiner contends that the term "line storage means is capable of storing image data corresponding to one line in the first direction of the image data resized at said first resizing means" is very similar to the term "line storage means capable of storing at least data corresponding to one line along the first direction of the image data outputted from the first resizing means" found in claim 1. The Examiner inquires if these two phrases have the same meaning, what is the purpose of repeating it in claim 9? If these two phrases have different meanings, the differences need to be clarified explicitly in the claims. To overcome this

objection, Applicants have amended claims 1 and 9. As such, Applicants submit that claim 1 is amended because it includes 4-point interpolation which may require more than 1 line memory. In contrast, Applicants submit that claim 9 is amended because it uses 2-point interpolation in which case one line memory suffices. Accordingly, Applicants request that the objection be withdrawn.

For claims 11-13, the Examiner contends that the phrases that include "through resizing means capable of causing the resizing ... to be through without a processing operation" make no sense. Applicants have amended claims 11-13. The aforesaid amendment finds support on pages 12 and 13 of the present application. Accordingly, Applicants request that the objection be withdrawn.

For claim 14, the Examiner rejects for the following ambiguity: "what is "a capacity," and how does the capacity correspond to a display region?" Applicants have amended claim 14 to read "the capacity" in place of "a capacity" because the capacity is the inherent feature of any storage means. Applicants submit that the amended claim 14 is no longer ambiguous. Accordingly, Applicants request that the objection be withdrawn.

Claim Rejections -35 U.S.C. §103

The Examiner rejects claims 1-2, 4-5, 9 and 11-14 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication Number 2002/0122198 filed by Tsue et al ("Tsue) in

view of U.S. Patent Number 6,094,226 issued to Ke et al ("Ke"). Applicants respectfully traverse the rejection.

Independent claim 1

Claim 1 as amended calls for ... *a line storage means including at least one line memory having capacity for storing image data corresponding to one line along the first direction of the image data outputted from the first resizing means; and ...*

For example, if a 1440 X 1080 size image data from the MPEG Decoder of Fig. 6 is to be resized block by block by the horizontal resizing circuit 2 to obtain the 720 X 480 size image data, **a capacity of line memory corresponding to 720 pixels suffices** because the storing to the line memory is effected after the horizontal resizing. Figs. 9A and 9B show the block sizes before and after the horizontal resizing processing. Fig. 9A shows the block size outputted by the MPEG decoder 1, and Fig. 9B shows the block size to be outputted by the horizontal resizing circuit 2. While, as shown in Fig. 9A, 8×8 pixels are treated as one block at the MPEG decoder 1, the block size is changed to 4×8 pixels by the means of the resizing at the horizontal resizing circuit 2 as shown in Fig. 9B **where the data of the lowest line thereof are stored to the line memory 3.**

For claim 1, the Examiner contends that the primary reference of Tsue discloses in Fig. 1 a line storage means capable of storing at least image data corresponding to one line along the first direction of the image data outputted from the first resizing means (m2 line portion image shift buffer). Applicants believe that the Examiner considers the present claim language to read

on the prior art because the claim calls for a line storage means capable of storing **at least** image data corresponding to one line which can be broadly interpreted as having no upper limit on the line storage capacity. To further distinguish over this interpretation, Applicants have amended the claim to read as follows: "*a line storage means including at least one line memory having capacity for storing image data* ***corresponding*** *to one line along the first direction of the image data outputted from the first resizing means.*"

As described in paragraph [0068] and illustrated in Fig. 1, Tsue discloses an m2 line portion image shift buffer (B2) which stores a number of lines, i.e., several lines of image data required for the magnification process in the direction Y. This is **completely different** because the line storage means of the present invention in claim 1 stores image data corresponding to one line thereby reducing the capacity of line memory as compared to the capacity of the line memory in Tsue which stores several lines of image data.

Additionally, as disclosed in column 5, lines 29 to 47 and illustrated in Fig. 2A, the secondary reference of Ke discloses a line buffer (232) which stores graphics data from the preceding line. However, unlike the line memory of the present invention in claim 1, the line buffer (232) **does not have the capacity to store image data corresponding to one line** because the vertically adjacent pixel from the previous line (Yp) are stored in buffer 232 as 5 MSBs (most significant bits) of its original 8 bit value, for e.g., line buffer of 5 X 640 bits.

Because neither Tsue nor Ke disclose or suggest *a line storage means including at least one line memory having capacity for storing image data corresponding to one line along the first*

direction of the image data outputted from the first resizing means as described above, Applicants submit that the claims 1-2, 4-5, 9 and 11-14 would not have been obvious over these references. Accordingly, Applicants request that the rejection under 35 U.S.C. § 103 be withdrawn.

Dependent claim 4

Claim 4 calls for *wherein said first resizing means resizes said image data based on a thinning out in the first direction.*

The Examiner contends that Ke reference discloses "a thinning out in the first direction" in col. 5 lines 8-1 5. Applicants disagree because Ke does not disclose pixel thinning. Instead, Ke discloses a weighted average implementation as described on column 5, lines 9-10. Because the proposed combination of the aforesaid references do not teach or suggest all of the claimed elements and limitations in claim 4, Applicants submit that claim 4 would not have been obvious over these references. Accordingly, Applicants request that the rejection under 35 U.S.C. 103 be withdrawn.

Dependent claim 5

Claim 5 calls for *wherein said first resizing means resizes said image data based on an added average in the first direction.*

The Examiner contends Ke discloses "an added average in the first direction" in column 5. Applicants respectfully disagree with the Examiner. The added average refers to the technique for outputting an average of a number of adjacent pixels as illustrated in at least Fig. 8A and described on at least page 11 of the present application. This is **completely different** from a weighted average implementation of Ke because weighted average implementation uses predesignated coefficients for scaling as illustrated in Table 1 of Ke reference. Because the proposed combination of the aforesaid references do not teach or suggest all of the claimed elements and limitations in claim 5, Applicants submit that claim 5 would not have been obvious over these references. Accordingly, Applicants request that the rejection under 35 U.S.C. 103 be withdrawn.

Dependent claim 9

Claim 9 as amended calls for *...said first resizing means, and said second resizing means effects resizing based on 2-point interpolation in the second direction.*

The Examiner argues Ke discloses "2-point interpolation in the second direction" in column 5, lines 28-42. Applicants disagree because as discussed above Ke discloses a weighted average implementation and not the 2-point interpolation. Because the proposed combination of the aforesaid references do not teach or suggest all of the claimed elements and limitations in claim 9, Applicants submit that claim 9 would not have been obvious over these references. Accordingly, Applicants request that the rejection under 35 U.S.C. 103 be withdrawn.

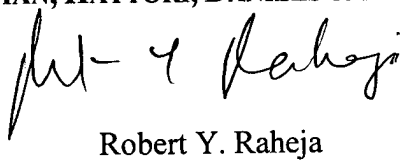
In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



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